AMENDMENTS TO THE CLAIMS

1-27. (Cancelled)

28. (New) A cross-linked foaming method comprising:

preparing at least one foaming material for a cross-linked foaming, the foaming material processed to have a plane or three-dimensional shape;

forming at least one interfacing pattern on a surface of at least one of the foaming material using at least one interfacing material that prevents chemical and physical interaction between the foaming materials; and

forming a cross-linked foam by foaming the foaming material having the interfacing pattern thereon, the cross-linked foam having a foam body and an internally-formed surface.

29. (New) The method according to claim 28, further comprising combining another foaming material with the foaming material having the interfacing pattern thereon before the step of forming the cross-linked foam.

30. (New) The method according to claim 28, wherein the foaming material is selected from an EVA-based film and material having a plane or three-dimensional shape with a surface roughness to easily form the interfacing pattern thereon.

31. (New) The method according to claim 29, wherein the foaming material is selected from an EVA-based film and material having a plane or three-dimensional shape with a surface roughness to easily form the interfacing pattern thereon.

32. (New) The method according to claim 28, wherein the foaming material is selected from a group consisting of synthetic resins including an ethylene-vinyl acetate (EVA)-based resin and a polyethylene-based resin, a copolymer of resins, a natural or synthetic rubber, and a composite material including at least one material selected from the synthetic resins and the copolymer and at least one material selected from the natural rubber and the synthetic rubber.

33. (New) The method according to claim 29, wherein the foaming material is selected from a group consisting of synthetic resins including an ethylene-vinyl acetate (EVA)-based resin and a polyethylene-based resin, a copolymer of resins, a natural or synthetic rubber, and a composite material including at least one material selected from the synthetic resins and the copolymer and at least one material selected from the natural rubber and the synthetic rubber.

34. (New) The method according to claim 28, wherein the interfacing material is selected from a group consisting of liquid phase materials, solid phase materials, and film-type materials.

35. (New) The method according to claim 28, wherein the interfacing pattern is formed by one of process methods including a printing, a transcription, a coating, a deposition, a spraying, a cloth attachment, an inserting, an attachment and modifications of these process methods.

36. (New) The method according to claim 28,wherein the interfacing material includes at least one foaming agent selected from foaming agents that are the same or different kinds of the foaming agent for the foaming material.

37. (New) The method according to claim 28, wherein if two or more interfacing patterns are formed, each of the interfacing patterns is formed using a same or different material.

38. (New) The method according to claim 28, wherein the step of forming the cross-linked foam is performed either by using a pressure cross-linked foaming method, a normal pressure cross-linked foaming method, or a modification thereof.

39. (New) The method according to claim 38, further comprising adding a material that is the same as or different from the foaming material to a remaining space of a molding die before the step of forming the cross-linked foam when the step of forming the cross-linked foam is performed by using the pressure cross-linked foaming method.

40. (New) The method according to claim 28, further comprising injecting air or liquid material into a space formed by the internally-formed surface of the cross-linked foam after the step of forming the cross-linked foam.

41. (New) The method according to claim 28, further comprising re-molding the cross-linked foam after the step of forming the cross-linked foam.

42. (New) The method according to claim 41, wherein the re-molding is performed together with one of materials that are the same as or different from the cross-linked foam.

43. (New) The method according to claim 28, further comprising inserting at least one of materials that are the same as or different from the foaming material into a space formed by the internally-formed surface after forming the cross-linked foam.

44. (New) The method according to claim 41, further comprising inserting at least one of materials that are the same as or different from the foaming material into a space formed by the internally-formed surface before re-molding the cross-linked foam.

45. (New) The method according to claim 42, further comprising inserting at least one of materials that are the same as or different from the foaming material into a space formed by the internally-formed surface before re-molding the cross-linked foam.

46. (New) The method according to claim 43, further comprising re-molding the cross-linked foam after inserting the material into the space formed by the internally-formed surface.

47. (New) The method according to claim 28, further comprising after the step of forming the cross-linked foam:

forming an air passage extending from a surface to a space formed by the internally-formed surface of the cross-linked foam; and

inserting one of materials that are the same as or different from the foaming material into the space through the air passage.

48. (New) The method according to claim 41, further comprising before the step of re-molding the cross-linked foam:

forming an air passage extending from a surface to a space formed by the internally-formed surface of the cross-linked foam; and

inserting one of materials that are the same as or different from the foaming material into the space through the air passage.

49. (New) The method according to claim 42, further comprising before the step of re-molding the cross-linked foam:

forming an air passage extending from a surface to a space formed by the internally-formed surface of the cross-linked foam; and

inserting one of materials that are the same as or different from the foaming material into the space through the air passage.

50. (New) The method according to claim 43, wherein the different material from the foaming material is selected from a group consisting of gas, liquid and solid materials.

51. (New) The method according to claim 44, wherein the different material from the foaming material is selected from a group consisting of gas, liquid and solid materials.

52. (New) The method according to claim 28, further comprising rolling up the foaming material having the interfacing pattern thereon before the step of forming the cross-linked foam.

53. (New) The method according to claim 29, further comprising rolling up the foaming material having the interfacing pattern thereon before the step of forming the cross-linked foam.

54. (New) The method according to claim 28, further comprising adding a different material from the foaming material to the foaming material having the interfacing pattern before the step of forming the cross-linked foam.

55. (New) The method according to claim 29, further comprising adding a different material from the foaming material to the foaming material having the interfacing pattern before the step of forming the cross-linked foam.

56. (New) A cross-linked foam fabricated by the method of claim 28.

57. (New) A cross-linked foam comprising:

a foam body; and

at least one inner cavity structure formed inside the foam body,

wherein the foam body and the inner cavity structure are formed simultaneously.

58. (New) The cross-linked foam according to claim 57, wherein the inner cavity structure is connected to at least one surface of the foam body.

59. (New) The cross-linked foam according to claim 57, wherein the foam body includes at least one air passage connected to the inner cavity structure.

60. (New) The cross-linked foam according to claim 59, further comprising a valve at the air passage to control an inflow and an outflow of air and/or moisture.

61. (New) The cross-linked foam according to claim 57, wherein the inner cavity structure is filled with one or more materials that are the same as or different from the foam body.

62. (New) The cross-linked foam according to claim 57, wherein a molded material that is the same material as or a different material from the foam body is inserted into the inner cavity structure.